

Application No. 10/605,988
Amendment Accompanying RCE

Docket No.: 60680-1765

REMARKS

Applicant has reviewed the Final Office Action, mailed November 9, 2005, and the Advisory Action, dated January 5, 2006 and thanks Examiner Patel for his careful review of the pending claims. Claims 1-14 have been rejected. Applicant has renumbered previously misnumbered claims 6-10 as claims 5-9 and has renumbered previously misnumbered claims 11-15 as claims 10-14. In light of the renumbering, claims 10-14 have been further amended to correctly identify claim 9 as the base claim from which they depend. No substantive amendments have been made.

New claims 15 and 16 have been added. Claim 15 depends from claim 1 and recites additional details of the orientation of the expander apexes. Claim 16 depends from claim 9 and recites similar limitations. The amended claims are fully supported by the original specification, and no new matter has been added. No claims have been canceled. Thus, claims 1-16 remain pending.

Claim Rejections Under 35 U.S.C. §102

A. Claim Rejections Using Fall

Claims 1-3, 6-7, 9 and 12-13 stand rejected under 35 U.S.C. §102(b) as being anticipated by Fall (U.S. Patent No. 2,349,903). Applicant respectfully traverses the rejection.

"To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *MEHL/Biophile Int'l Corp. v. Milgraum*, 192 F.3d 1362, 1365, 52 USPQ2d 1303 (Fed. Cir. 1999). Independent claims 1 and 9 each recite the limitation "wherein radial compression of said upper and lower rings induces axial expansion" of the claimed expander. Fall does not disclose or suggest this limitation. According to the Examiner, Fall's expander ring 18 meets this limitation. Applicant respectfully disagrees.

First, Fall does not state that its expander is induced into axial expansion. Nor has the Examiner identified any portion of the text where axial expansion is discussed.

Second, axial expansion would not inherently result from Fall's expander structure. According to Fall, "the expander ring 15 is not circular in plan, but is approximately polygonal,

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as shown in Figure 1” Fall at 26-28.¹ Fall’s expander is also “split at 15c in order that it may expand or contract as required by the ring segments 10 and 11” Fall at 33-35. Given this structure, as Fall’s expander ring is radially compressed, it would constrict and the ends on either side of the split would move together. However, the ring includes no structure that would cause it to expand *axially* in response to radial compression. “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365, 52 USPQ2d 1303 (Fed. Cir. 1999) (emphasis added) (citations omitted); *see also Transclean Corp. v. Bridgewood Services*, 290 F.3d 1364, 1373, 62 USPQ2d 1865 (Fed. Cir. 2002) (“anticipation by inherent disclosure is appropriate only when the reference discloses prior art that *must necessarily* include the unstated limitation”) (emphasis added).

New claims 15 and 16 depend from claims 1 and 9, respectively, and recite the further limitation “wherein the apexes comprise a set of upper apexes and a set of lower apexes, the set of upper apexes is spaced apart from the set of lower apexes in the axial direction of the expander, the set of upper apexes contacts the second portion of the upper ring, and the set of lower apexes contacts the second portion of the lower ring.” The portions of Fall which are alleged to be “apexes” are oriented radially and do not meet this limitation. Thus, Claims 15 and 16 are allowable over Fall for this additional reason as well as those discussed above. The remaining dependent claims recite additional limitations and are independently allowable also.

Because Fall does not expressly or inherently disclose each limitation of the rejected it claims, it cannot anticipate them. Therefore, reconsideration and withdrawal of the rejection are respectfully requested.

B. Claim Rejections Using Wuerfel

Claims 1-2, 4, 6-10 and 12-14 stand rejected under 35 U.S.C §102(b) as being anticipated by Wuerfel (RE. 20,256). Applicant respectfully traverses the rejection.

As mentioned above, the rejected claims recite the limitation “wherein radial compression of said upper and lower rings induces axial expansion” of the claimed expander.

¹ Although the Examiner referenced expander ring 18 from Fall’s Figure 4 in his rejection, Fall states that “The expander ring 18 is similar to the expander ring 15 in the form of the invention shown in Figures 1, 2, and 3 but is considerably narrower.” Fall at 15-18.

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Like Fall, Wuerfel does not disclose or suggest this limitation. According to the Examiner, Wuerfel's expander ring 28 meets this limitation. Applicant respectfully disagrees.

First, nowhere does Wuerfel state that its expander is induced into axial expansion. If anything, Wuerfel states that its expander only expands *radially*. Wuerfel refers to the expander as a "*radially* acting flat-ribbon expander spring 28." Wuerfel at col. 4, lines 24-25 (emphasis added). Moreover, Wuerfel states that "the rings 12 and 13 are urged outwardly by the expander spring 28." Wuerfel at col. 4, lines 45-47. Thus, there is clearly no express disclosure of an axially expanding expander.

Second, axial expansion would not inherently result from Wuerfel's expander structure. The Examiner characterizes Wuerfel's expander 28 as "generally sinusoidal." However, the alleged sinusoidal shape is oriented radially. When the expander is radially compressed, it would simply induce more radial force on rings 12 and 13. Nothing in the structure of expander 28 suggests that it has the ability to expand axially in response to radial compression of the upper and lower rings. Thus, Wuerfel does not inherently anticipate claims 1-2, 4, 6-10 or 12-14. See *MEHL/Biophile Int'l Corp. v. Milgraum*, 192 F.3d 1362, 1365, 52 USPQ2d 1303 (Fed. Cir. 1999); *Transclean Corp. v. Bridgewood Services*, 290 F.3d 1364, 1373, 62 USPQ2d 1865 (Fed. Cir. 2002)

Like Fall, Wuerfel also does not disclose or suggest the orientation of the expander apexes recited in new claims 15 and 16. Thus, claims 15 and 16 are distinguishable from Wuerfel for this reason as well as those discussed above. The remaining dependent claims recite additional limitations and are independently allowable as well.

Given the foregoing, reconsideration and withdrawal of the rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. §103

A. Claim rejections Using Fall

Claim 5 stands rejected under 35 U.S.C. §103(a) as being obvious over Fall (U.S. Patent No. 2,349,903). Claim 5 depends from Claim 1 and includes each of its limitations. As mentioned above, Fall does not disclose or suggest an expander wherein radial compression of

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upper and lower rings induces axial expansion of the expander. Moreover, the Examiner has not identified any motivation or suggestion in the prior art for modifying Fall to include this feature.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." *See also Litton Systems, Inc. v. Honeywell, Inc.*, 87 F.3d 1559, 1569 (Fed. Cir. 1996) (rejecting defendants' obviousness challenge on the grounds that "[t]he prior art simply does not contain may limitations contained in the claimed method"); *Manual of Patent Examining Procedure* (MPEP) at § 2143.03. Because Fall does not disclose or suggest each limitation of claim 5, it cannot render the claim obvious, and reconsideration and withdrawal of the rejection are respectfully requested.

Claim 5 recites the additional limitation "wherein said apexes of said expander are generally flat and are supported by two adjacent leg members such that an angle defined by said adjacent leg members is about 16 degrees." Claim 5 is additionally allowable on this basis as well. In rejecting claim 5, the Examiner relies on *In re Boesch* and asserts that "discovering an optimum value of a result effective variable involves only routine skill in the art." However, *Boesch* states that "discovery of an optimum value of a *result effective variable in a known process* is ordinarily within the skill of the art." *In re Boesch*, 617 F.2d 272, 276 (C.C.P.A. 1980) (emphasis added). None of the references of record establish that the angles of an expander's legs are known to be *result effective* for inducing axial expansion in response to radial compression of the expander. Thus, *Boesch* is inapplicable.

B. Claim rejections Using Wuerfel

Claims 5 and 11 stand rejected under 35 U.S.C. §103(a) as being obvious over Wuerfel (RE. 20,256). Claim 5 depends from Claim 1 and includes each of its limitations. Claim 11 depends from Claim 9 and includes each of its limitations. As mentioned above, Wuerfel does not disclose or suggest an expander wherein radial compression of upper and lower rings induces axial expansion of the expander, as recited in claims 1 and 9. Moreover, the Examiner has not identified any motivation or suggestion in the prior art for modifying Wuerfel to include this feature. Thus, Wuerfel does not render the claimed invention obvious. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *Litton Systems, Inc. v. Honeywell, Inc.*, 87 F.3d 1559,

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1569 (Fed. Cir. 1996); *Manual of Patent Examining Procedure* (MPEP) at § 2143.03.

Reconsideration and withdrawal of the rejection are respectfully requested.

As mentioned above, claim 5 depends from claim 1 and recites additional limitations concerning the angular orientation of the expander legs. Claim 11 depends from claim 9 and recites similar limitations. Because the references of record do not disclose that the angular orientation of the expander legs is known to be result effective, *In re Boesch*, 617 F.2d 272, 276 (C.C.P.A. 1980), the additional limitations of claims 5 and 11 independently support their patentability.


CONCLUSION

In view of the foregoing, each of the presently pending claims is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to pass the application to issue.

Applicant believes that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper. However, if any additional fees are required which are not so identified, permission is given to charge Deposit Account No. 18-0013, under Order No. 60680-1765, from which the undersigned is authorized to draw.

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